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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/034,468

12/27/2001

Peter Smidth

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06/15/2004

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EXAMINER

KINKEAD, ARNOLD M

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,468

Applicant(s)

SMIDTH, PETER

Examiner

Arnold M Kinhead

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,4-6,8-11,14,16 and 18-21 is/are rejected.
- 7) ☒ Claim(s) 2,3,7,12,13,15,17,22 and 23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07-03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, lines 2 and 3, “ the source” lacks proper antecedent basis.

Also, in claim 14, lines 2 and 4, “ the source” lacks proper antecedent basis.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 6,8,9,10,11,16,18,19,20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Hessel et al(US 6,590,942).

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The reference by Hessel et al discloses a radio frequency communication system(see figures 3 and 7) and col. 4, lines 37-end, which includes a digital signal processing system(10, see appl. claim 21)that allows for data to be stored(14), representing instructions, to allow the machine(DSP) to perform the following:

The transceiver subsystem(12) will allow for receiving a sequence of symbols(data) that has been modulated onto a carrier frequency over a channel(see appl. Claims 1, 11, 21). As noted in the abstract the method and apparatus allows for the demodulation of the symbols using a clock frequency(the demodulator has an NCO which allows for this), and frequency offset with respect to the carrier signal(see appl. Claims 6 and 16) is determined and used to adjust the NCO(clock frequency). The adjusted clock frequency of the NCO is used also in the transmitter section for transmitting the symbols modulated on a carrier frequency(see appl. Claims 8 and 18 and figure 8, with common NCO for both receive and transmit operation; this inherently means that the DSP system described above may serve as a ' master terminal' , (see claims 10 and 20), communicating with other remote terminals; As noted in col. 9, lines 30-50, , various signaling schemes are contemplated including PSK as well as with symbol re-timing and IF carrier generation(see appl. Claim 9 and 19) . The adjustment drive circuit being detector(165, see figure 9).The method steps being inherent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1,5,6,11,16 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwasaki (US 5,012,491).

The reference by Iwasaki discloses a digital communication system, see figure 1, whereby preamble information, see col. 2, lines 54-65, a sequence of symbols is detected. The symbols have been modulated onto a carrier frequency and transmitted as a burst of QPSK data. A frequency offset is determined by way of VCO(26) and clock frequency

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error detector(25), see col. 4, lines 27-56, the clock(VCO) is adjusted based on this offset; that is, the offset with respect to the received carrier frequency. The adjustment drive circuit being detector(25). The method steps being inherent.

Allowable Subject Matter

6. Claims 2,3,7,12,13,15,17,22 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 4 and 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. The examiner could not find fair suggestion in the prior art for the integration of the frequency offset over a predetermined number of symbols prior to applying the frequency offset....identifying the source of the sequence....determining a frequency offset by determining a phase rotation of the PSK symbols...a short term integrator...a deframer...

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnold M Kinhead whose telephone number is 571-272-1763. The examiner can normally be reached on Mon-Fri, 8:30 am -5 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arnold M Kinkead
Primary Examiner
Art Unit 2817

Arnold Kinkead
June 9, 2004